

above, wherein the consensus sequence obtained is herein designated DNA38106. Based on the DNA38106 consensus sequence, oligonucleotides were synthesized: 1) to identify by PCR a cDNA library that contained the sequence of interest, and 2) for use as probes to isolate a clone of the full-length coding sequence for PRO792.

A pair of PCR primers (forward and reverse) were synthesized:

5 forward PCR primer 5'-GCGAGAACTGTGTCATGATGCTGC-3' (SEQ ID NO:232)

reverse PCR primer 5'-GTTTCTGAGACTCAGCAGCGGTGG-3' (SEQ ID NO:233)

Additionally, a synthetic oligonucleotide hybridization probe was constructed from the consensus DNA38106 sequence which had the following nucleotide sequence

hybridization probe

10 5'-CACCGTGTGACAGCGAGAAGGACGGCTGGATCTGTGAGAAAAGGCACAAC-3' (SEQ ID NO:234)

In order to screen several libraries for a source of a full-length clone, DNA from the libraries was screened by PCR amplification with the PCR primer pair identified above. A positive library was then used to isolate clones encoding the PRO792 gene using the probe oligonucleotide and one of the PCR primers. RNA for construction of the cDNA libraries was isolated from human bone marrow tissue (LIB255).

15 DNA sequencing of the clones isolated as described above gave the full-length DNA sequence for PRO792 [herein designated as UNQ431 (DNA56352-1358)] (SEQ ID NO:230) and the derived protein sequence for PRO792.

The entire nucleotide sequence of UNQ431 (DNA56352-1358) is shown in Figure 84 (SEQ ID NO:230). Clone UNQ431 (DNA56352-1358) contains a single open reading frame with an apparent translational initiation site at nucleotide positions 67-69 and ending at the stop codon at nucleotide positions 946-948 (Figure 84). The predicted polypeptide precursor is 293 amino acids long (Figure 85). The full-length PRO792 protein shown in Figure 85 has an estimated molecular weight of about 32,562 daltons and a pI of about 6.53. Analysis of the full-length PRO792 sequence shown in Figure 85 (SEQ ID NO:231) evidences the presence of the following: a type II transmembrane domain from about amino acid 31 to about amino acid 54, potential N-glycosylation sites from about amino acid 73 to about amino acid 76 and from about amino acid 159 to about amino acid 162, a leucine zipper amino acid sequence pattern from about amino acid 102 to about amino acid 123, potential N-myristoylation sites from about amino acid 18 to about amino acid 23, from about amino acid 133 to about amino acid 138 and from about amino acid 242 to about amino acid 247 and a C-type lectin domain signature block from about amino acid 264 to about amino acid 287. Clone UNQ431 (DNA56352-1358) has been
25 deposited with ATCC on May 6, 1998 and is assigned ATCC deposit no. 209846.

30 Analysis of the amino acid sequence of the full-length PRO792 polypeptide suggests that it possesses significant sequence similarity to the CD23 protein, thereby indicating that PRO792 may be a novel CD23 homolog. More specifically, an analysis of the Dayhoff database (version 35.45 SwissProt 35) evidenced significant homology between the PRO792 amino acid sequence and the following Dayhoff sequences, S34198,
35 A07100_1, A05303_1, P_R41689, P_P82839, A10871_1, P_R12796, P_R47199, A46274 and P_R32188.

EXAMPLE 39: Isolation of cDNA Clones Encoding Human PRO866

A consensus sequence was obtained relative to a variety of EST sequences as described in Example 1

above, wherein the consensus sequence obtained is herein designated DNA44708. Based on the DNA44708 consensus sequence, oligonucleotides were synthesized: 1) to identify by PCR a cDNA library that contained the sequence of interest, and 2) for use as probes to isolate a clone of the full-length coding sequence for PRO866.

PCR primers (forward and reverse) were synthesized:

- 5 forward PCR primer 1 5'-CAGCACTGCCAGGGGAAGAGGG-3' (SEQ ID NO:237)
forward PCR primer 2 5'-CAGGACTCGTACGTCCG-3' (SEQ ID NO:238)
forward PCR primer 3 5'-CAGCCCCCTTCTCCTCCTTCTCCC-3' (SEQ ID NO:239)
reverse PCR primer 1 5'-GCAGTTATCAGGAGCGCACTCAGCC-3' (SEQ ID NO:240)
reverse PCR primer 2 5'-CCAGCGAGAGGCAGATAG-3' (SEQ ID NO:241)

- 10 reverse PCR primer 3 5'-CGGTCACCGTGTCTGCGGGATG-3' (SEQ ID NO:242)

Additionally, a synthetic oligonucleotide hybridization probe was constructed from the consensus DNA44708 sequence which had the following nucleotide sequence

hybridization probe

5'-CAGCCCCCTTCTCCTCCTTCTCCCCACGTCCTATCTGCCTCTC-3' (SEQ ID NO:243)

15 In order to screen several libraries for a source of a full-length clone, DNA from the libraries was screened by PCR amplification with one of the PCR primer pairs identified above. A positive library was then used to isolate clones encoding the PRO866 gene using the probe oligonucleotide and one of the PCR primers. RNA for construction of the cDNA libraries was isolated from human fetal kidney tissue (LIB228).

20 DNA sequencing of the clones isolated as described above gave the full-length DNA sequence for PRO866 [herein designated as UNQ435 (DNA53971-1359)] (SEQ ID NO:235) and the derived protein sequence for PRO866.

The entire nucleotide sequence of UNQ435 (DNA53971-1359) is shown in Figure 86 (SEQ ID NO:235). Clone UNQ435 (DNA53971-1359) contains a single open reading frame with an apparent translational initiation site at nucleotide positions 275-277 and ending at the stop codon at nucleotide positions 1268-1270 (Figure 86). The predicted polypeptide precursor is 331 amino acids long (Figure 87). The full-length PRO866 protein shown in Figure 87 has an estimated molecular weight of about 35,844 daltons and a pI of about 5.45. Analysis of the full-length PRO866 sequence shown in Figure 87 (SEQ ID NO:236) evidences the presence of the following: a signal peptide from about amino acid 1 to about amino acid 26. Clone UNQ435 (DNA53971-1359) has been deposited with ATCC on April 7, 1998 and is assigned ATCC deposit no. 209750.

30 Analysis of the amino acid sequence of the full-length PRO866 polypeptide suggests that it possesses significant sequence similarity to the mindin/spondin family of proteins, thereby indicating that PRO866 may be a novel mindin homolog. More specifically, an analysis of the Dayhoff database (version 35.45 SwissProt 35) evidenced significant homology between the PRO866 amino acid sequence and the following Dayhoff sequences, AB006085_1, AB006084_1, AB006086_1, AF017267_1, CWU42213_1, AC004160_1, CPMICRP_1, S49108, A48569 and I46687.

EXAMPLE 40: Isolation of cDNA Clones Encoding Human PRO871

A consensus sequence was obtained relative to a variety of EST sequences as described in Example 1

above, wherein the consensus sequence obtained is herein designated DNA40324. Based on the DNA40324 consensus sequence, oligonucleotides were synthesized: 1) to identify by PCR a cDNA library that contained the sequence of interest, and 2) for use as probes to isolate a clone of the full-length coding sequence for PRO871.

PCR primers (forward and reverse) were synthesized:

- 5 forward PCR primer 1 5'-TGCGGAGATCCTACTGGCACAGGG-3' (SEQ ID NO:246)
forward PCR primer 2 5'-CGAGTTAGTCAGAGCATG-3' (SEQ ID NO:247)
forward PCR primer 3 5'-CAGATGGTGTCTGTTGCCG-3' (SEQ ID NO:248)
reverse PCR primer 1 5'-CAACTGGAACAGGAAGTGTGATGTGGATC-3' (SEQ ID NO:249)
reverse PCR primer 2 5'-CTGGTTCAGCAGTGAAGGGTCTG-3' (SEQ ID NO:250)
10 reverse PCR primer 3 5'-CCTCTCCGATTAAACGC-3' (SEQ ID NO:251)

Additionally, a synthetic oligonucleotide hybridization probe was constructed from the consensus DNA40324 sequence which had the following nucleotide sequence

hybridization probe

5'-GAGAGGAGCTGGTTGCCATGGCAAATGCTGGTCTCATGATAATGG-3' (SEQ ID NO:252)

15 In order to screen several libraries for a source of a full-length clone, DNA from the libraries was screened by PCR amplification with one of the PCR primer pairs identified above. A positive library was then used to isolate clones encoding the PRO871 gene using the probe oligonucleotide and one of the PCR primers. RNA for construction of the cDNA libraries was isolated from human fetal kidney tissue (LIB227).

20 DNA sequencing of the clones isolated as described above gave the full-length DNA sequence for PRO871 [herein designated as UNQ438 (DNA50919-1361)] (SEQ ID NO:244) and the derived protein sequence for PRO871.

The entire nucleotide sequence of UNQ438 (DNA50919-1361) is shown in Figure 88 (SEQ ID NO:244). Clone UNQ438 (DNA50919-1361) contains a single open reading frame with an apparent translational initiation site at nucleotide positions 191-193 and ending at the stop codon at nucleotide positions 1607-1609 (Figure 88). The predicted polypeptide precursor is 472 amino acids long (Figure 89). The full-length PRO871 protein shown in Figure 89 has an estimated molecular weight of about 53,847 daltons and a pI of about 5.75. Analysis of the full-length PRO871 sequence shown in Figure 89 (SEQ ID NO:245) evidences the presence of the following: a signal peptide from about amino acid 1 to about amino acid 21, potential N-glycosylation sites from about amino acid 109 to about amino acid 112 and from about amino acid 201 to about amino acid 204, 30 a cyclophilin-type peptidyl-prolyl cis-trans isomerase signature sequence from about amino acid 49 to about amino acid 66 and regions that are homologous to cyclophilin-type peptidyl-prolyl cis-trans isomerases from about amino acid 96 to about amino acid 140, from about amino acid 49 to about amino acid 89 and from about amino acid 22 to about amino acid 51. Clone UNQ438 (DNA50919-1361) has been deposited with ATCC on May 6, 1998 and is assigned ATCC deposit no. 209848.

35 Analysis of the amino acid sequence of the full-length PRO871 polypeptide suggests that it possesses significant sequence similarity to the cyclophilin family of proteins, thereby indicating that PRO871 may be a novel cyclophilin protein family member. More specifically, an analysis of the Dayhoff database (version 35.45 SwissProt 35) evidenced significant homology between the PRO871 amino acid sequence and the following